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Workers with Disabilities
and the Impact of Workplace Structures

In this 16th edition of the CCSD's *Disability Research Information Sheets*, we examine labour force outcomes such as wage rates, job satisfaction, training, and promotions for workers with and without disabilities. Using data from Statistics Canada's 2001 Workplace and Employee Survey (WES)[1] and the 2001 Adult Participation and Activity Limitation Survey (PALS)[2], we also examined the links between these outcomes or opportunities and certain "structural" aspects of the workplaces. In particular, we examined the capacity of employers in both "core" and "non-core" firms[3] to structure their workplaces in order to provide various opportunities to their employees.

For example, do workers with disabilities tend to be excluded from core firms? Are their workplace outcomes and opportunities different from those of workers without disabilities, depending on certain structural aspects of the workplaces? The data presented here were taken from a larger CCSD report – titled, *Workplace Structures and Workers with Disabilities* – which will be available on the CCSD's website at www.ccsd.ca.

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[1] The 2001 WES surveyed employed individuals and their employers. Excluded from this survey were workplaces involved in: public administration; crop and animal production; fishing, hunting, and trapping; private households; religious organizations; and workplaces in the Territories. Because public administration was excluded, there is a heavy emphasis on private sector employers. The 2001 WES surveyed over 20,000 employees in more than 5,000 workplaces.

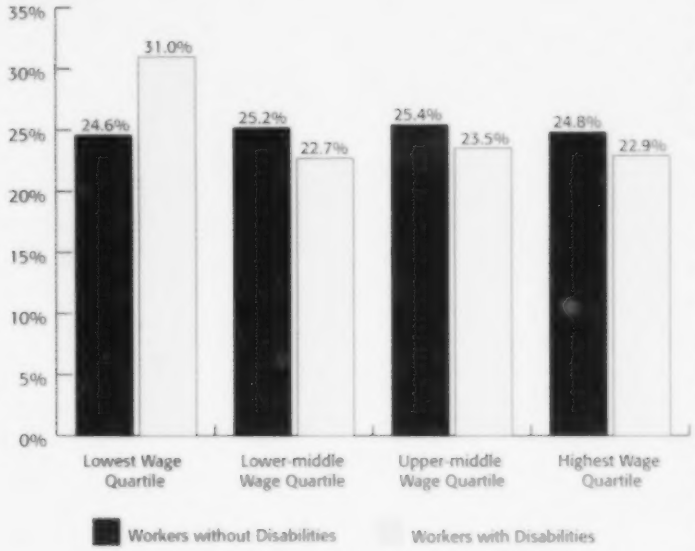
[2] The Adult PALS is a post-censal survey, that is, a survey that uses a Census question to identify the target population. It was conducted in 10 provinces with a sample size of approximately 35,000 adults aged 15 and older. Data from the Adult PALS allows severity rate and type of disability to be identified.

[3] For our larger study on workplace structures, from which these data were derived, the capacity variable divided firms based on their size, revenues and human resource structures into two groups: firms with a high likelihood of having the capacity to offer internal labour market opportunities (core firms), and firms that do not (non-core). "Core" capacity firms were defined as those with 75 or more employees and at least one of the following features: revenue per employee in the top quartile (more than $244,475 per employee); firms with multiple locations; or, firms in which the responsibility for human resource matters reside within a separate department, or with one full-time person, or with a person or department outside of the firm itself (such as with a professional human resource firm). These characteristics were chosen because the research literature indicates that such firms are the most likely to be able to offer training and advancement opportunities to their employees.

Outcomes and Opportunities:

Wages[4]: Overall, workers with disabilities were more likely than those without disabilities to earn wages in the lowest wage quartile (31% compared with 24.6%) and they were slightly less likely to earn wages in the top quartile (22.9% compared to 24.8%).

Chart 1 **Hourly Wage Quartiles***



* This refers to hourly wage quartiles for all workers surveyed (with and without disabilities). When all workers are ranked from lowest to highest according to their hourly wages, then placed into four equal groups, the lowest 25% are in the lowest wage quartile, the next lowest 25% are in the lower-middle wage quartile, and so on.
Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

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Since workers with disabilities tend to have more work experience than those without disabilities, we might have expected them to have a more favourable wage profile. For example, 34.3% of workers with disabilities had 25 or more years of work experience, compared with 20.1% of workers without disabilities; and only 17.7% of workers with disabilities had less than eight years experience, compared with 27.1% of their non-disabled counterparts. This makes their less favourable wage profile all the more worrisome.

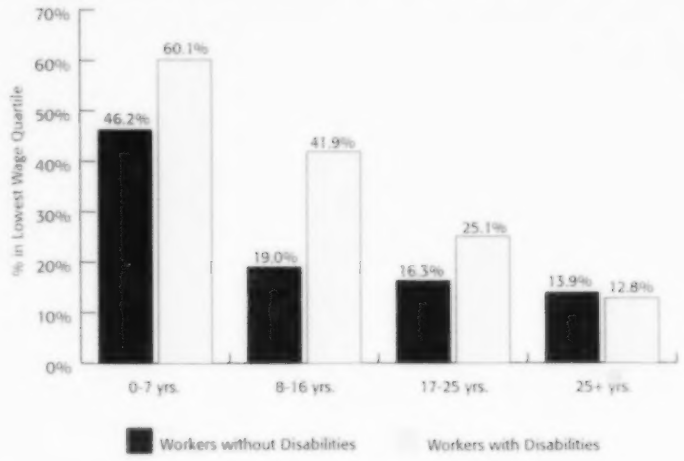
When we compared workers with similar levels of work experience, we found that those with and those without disabilities who had 25 or more years experience had fairly similar wage profiles. This suggests that if workers have reached an advanced stage in their careers and are still employed – whether they have been disabled for some time or are newly disabled – there is little wage disadvantage to being disabled.[5] Unfortunately, this is not true for disabled workers who are at an earlier stage of their careers.

At lower levels of work experience, employees with disabilities had much less favourable wage profiles than those without disabilities. Chart 2(A) summarizes the percentage of workers with earnings in the lowest wage quartile for four different levels of work experience, and Chart 2(B) does so for workers with earnings in the highest wage quartile.

[4] In all cases in this document, wages refers to hourly wages or the equivalent for workers not paid on an hourly basis.

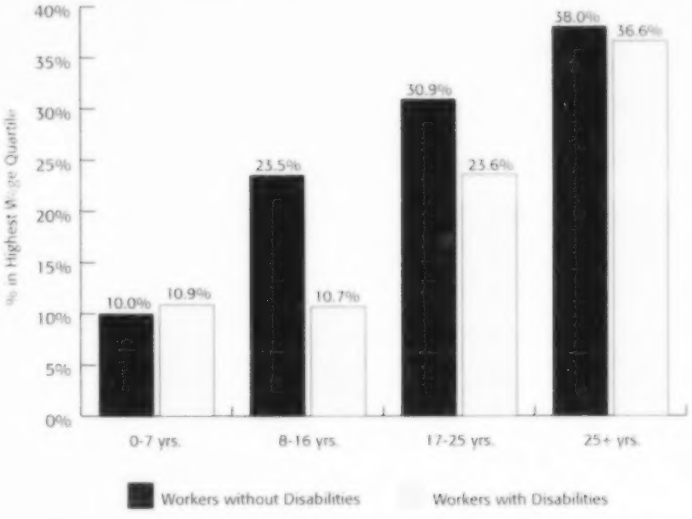
[5] It is important to note, however, that many individuals who become disabled later in life suffer job loss. Because the WES includes only employed persons, this kind of disadvantage (job loss) is not evident in these data.

Chart 2(A) Lowest Wage Quartile, by Level of Job Experience



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

Chart 2(B) Highest Wage Quartile, by Level of Job Experience



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

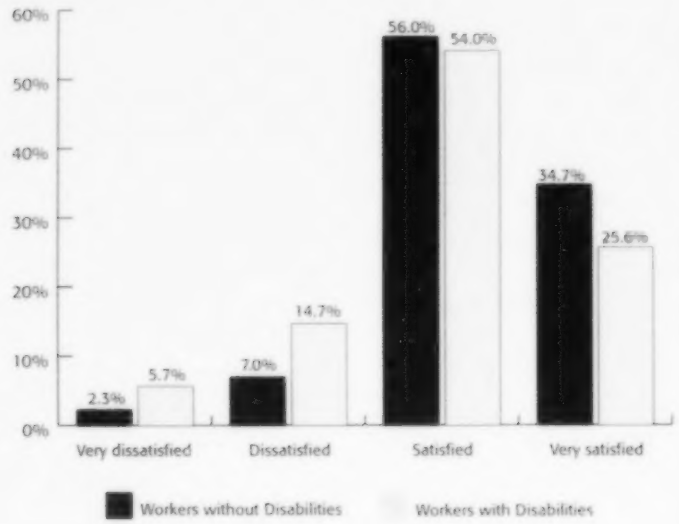
Clearly, workers with disabilities are overrepresented in the lowest wage quartile among those with less than 25 years experience. For example, 60.1% of workers with disabilities who had less than eight years work experience had earnings in the lowest wage quartile, compared with 46.2% of those without disabilities. Similarly, among workers with eight to 16 years experience, 41.9% of those with disabilities were in the lowest wage quartile, compared with only 19% of their non-disabled counterparts.

Workers with and without disabilities who had less than eight years job experience were almost equally likely to be in the highest wage quartile. In both cases, however, only about one in 10 had earnings in that top wage quartile. The advantage of having more experience is evident as we see that 38% of those without disabilities and 36.6% of those with disabilities who had 25 or more years of work experience had earnings in the top wage quartile. Among employees with eight to 16 or 17 to 24 years experience, workers without disabilities had a clear advantage with respect to earnings, and they were much more likely to have earnings in the top wage quartile.

Job Satisfaction: Workers without disabilities were more likely than those with disabilities to be very satisfied overall with their jobs – 34.7%, compared with 25.6% (see Chart 3).[6]

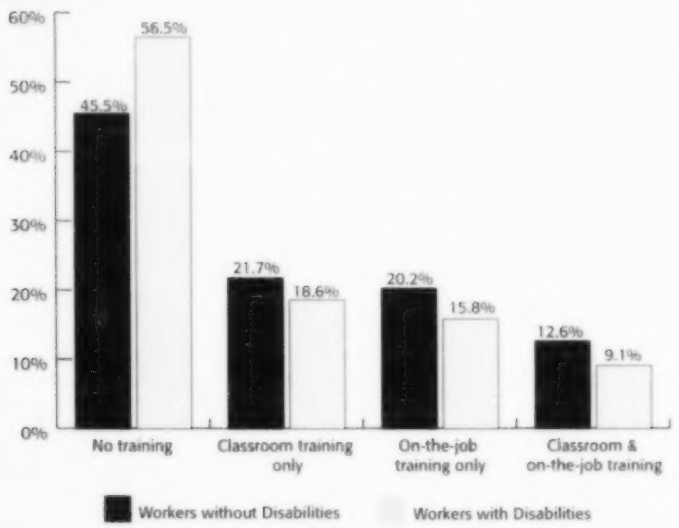
[6] This relationship holds true, even within similar levels of work experience. Workers without disabilities are more satisfied with their jobs, regardless of how long they have been working.

Chart 3 **Overall Job Satisfaction**



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

Chart 4 **Access to Training**



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

Training: Workers with disabilities were less likely than those without disabilities to have had training of any type. As summarized in Chart 4, 56.5% of workers with disabilities reported having had no training at all in the previous year, compared with 45.5% of those without disabilities.[7]

According to the PALS data, about half of the employed adults with disabilities reported having had some training within the previous five years. While it is encouraging that 50.8% of those with severe/very severe disabilities had received some training in the previous five years, 7.3% also reported that they had been refused training at some point over that period because of their disability. (Among those with moderate disabilities, 7.4%* said they had been refused training, as had 2.7%* of those with mild disabilities).[8]

Promotion: Workers without disabilities were more likely than those with disabilities to have received a promotion in the previous year (37.5% compared with 31.1%;[9] not shown in chart). According to the PALS, 11.7% of employed persons with severe/very severe disabilities reported that they had been refused a promotion due to their disability

[7] In terms of access to training, this gap between workers with and those without disabilities does not diminish at any level of work experience, similar to the gap in wages.

* These percentages should be used with caution due to small sample sizes.

[8] According to PALS data, the likelihood of having training increases dramatically with education: 26.7% of those with less than a high school education had training in the previous five years, compared with 44.5% among high school graduates and 62.9% of post-secondary graduates.

[9] This relationship also holds true, regardless of work experience.

at some point in the previous five years. (This compares with 7.4%* among those with moderate disabilities and 2.7%* among those with mild disabilities.)

Core Firms:

Some workplaces are structured in a manner that is more favourable to workers than others. According to the research literature, such workplaces are characterized by having strong promotional ladders, relatively high wages, the availability of training options, and a variety of other favourable opportunities. In order to be able to offer these opportunities, however, employers must have the capacity to structure their workplaces in this manner. Firms with this capacity are described as "core firms."

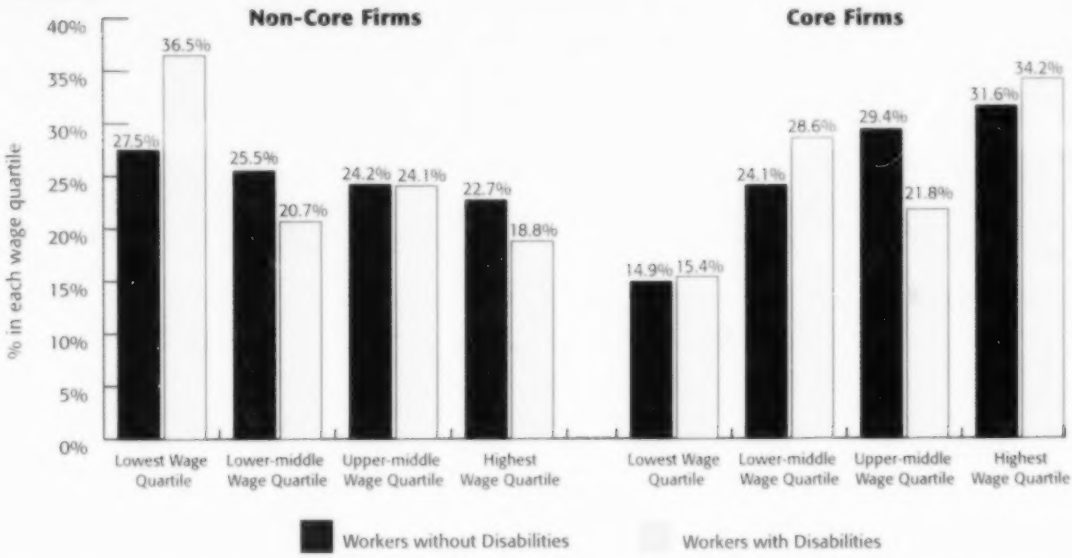
Using the existing literature on labour market segmentation, we constructed a very basic measure of "capacity." One key element in identifying core firms is the large number of employees – 75 or more. In addition, a core firm for our purposes also had at least one of the following characteristics: revenue per employee in the top quartile (more than $244,475 per employee); multiple locations; or a dedicated human resource unit.

Using these characteristics, the data indicated that workers with disabilities were slightly more likely to be employed in core firms (26.3%) than were workers without disabilities (23.2%).

Does working in a core firm provide more equal opportunities?

Core Firms and Wages: Being employed in a core firm does seem to improve the wage profiles of both workers with disabilities and those without. For example, 36.5% of workers with disabilities in non-core firms had earnings in the lowest wage quartile; for those employed in core firms, this was cut by more than half, to 15.4%.

Chart 5 **Core Firms and Wage Quartiles**



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

* These percentages should be used with caution due to small sample sizes.

At the same time, the percentage of workers with disabilities who had earnings in the top wage quartile nearly doubled – from 18.8% for those working in non-core firms, to 34.2% for those employed in core firms. In fact, workers with disabilities in core firms were more likely than those without disabilities to have earnings in the top wage quartile – 34.2% compared with 31.6% (see Chart 5).

Core Firms and Job Satisfaction: Being employed in a core firm does not seem to improve overall job satisfaction, either for workers with or without disabilities. In fact, both groups in the core sector were less likely to be very satisfied with their jobs than were employees in the non-core sector (see Chart 6).

Core Firms and Training: Employment in a core firm seems to improve training opportunities for workers with disabilities, however, the improvement is not as notable as it was for wages (see Chart 7). The most noteworthy advantage for workers with disabilities in a core firm was an increase in the overall proportion who received classroom-only training (from 17.6% in non-core firms to 21.7% in core firms) and a reduction in the proportion who received no training at all (from 58% to 52.2%).[10]

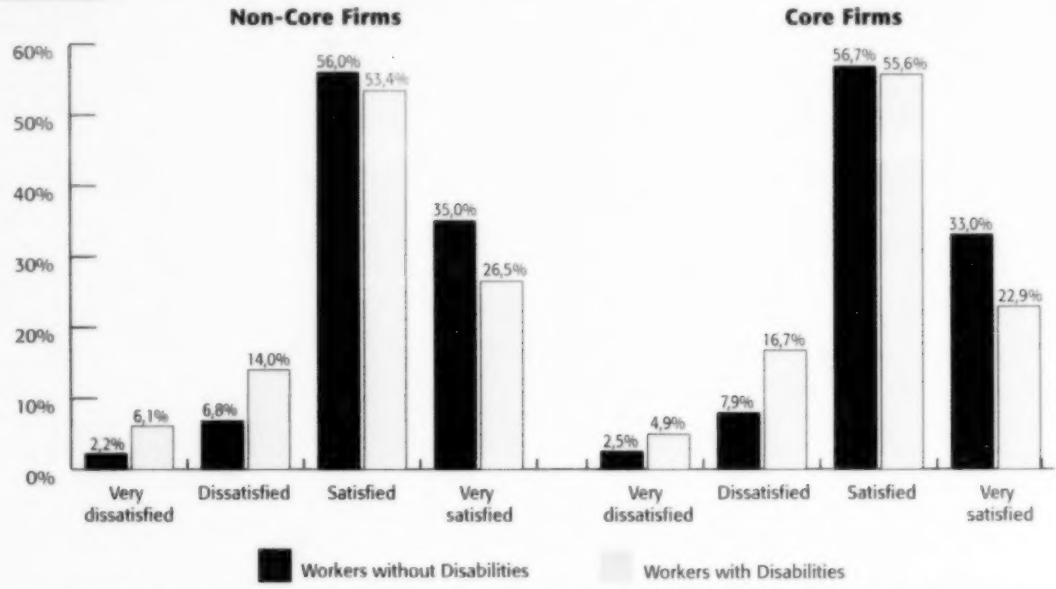
Core Firms and Promotion: Employment in a core firm closes the promotion gap between workers with and those without disabilities (not shown in chart). In non-core firms, 30% of workers with disabilities reported having received a promotion, compared with 38% of workers without disabilities. However, in core firms, the rates of promotion were nearly equal – 35% for workers with disabilities and 35.3% for workers without disabilities.

Other Interesting Findings:

Computer Use on the Job is Very Important

- Computer use on the job increases the wage profile of workers with disabilities. For

Chart 6 **Core Firms and Job Satisfaction**



Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

[10] The WES also provided evidence that training is linked with higher wage rates. Having both classroom and on-the-job training lead to the greatest wage returns of all.

Chart 7 **Training Profiles of Workers in Core and Non-core Firms**

	Non-core Firms				Core Firms			
	Workers without Disabilities		Workers with Disabilities		Workers without Disabilities		Workers with Disabilities	
Training Received	(Number)	(%)	(Number)	(%)	(Number)	(%)	(Number)	(%)
No training	3,911,393	46.8	311,848	58.0	1,042,631	41.3	100,022	52.2
Classroom training only	1,738,268	20.8	94,350	17.6	622,146	24.6	41,576	21.7
On-the-job training only	1,707,071	20.4	83,786	15.6	487,036	19.3	31,389	16.4
Classroom & On-the-job training	994,266	11.9	47,595	8.9	373,399	14.8	18,667	9.7
	8,350,998	100.0	537,579	100.0	2,525,212	100.0	191,654	100.0

	Non-core Firms				Core Firms			
	Workers without Disabilities		Workers with Disabilities		Workers without Disabilities		Workers with Disabilities	
Of those who received training:	(Number)	(%)	(Number)	(%)	(Number)	(%)	(Number)	(%)
Classroom training only	1,738,268	39.2	94,350	41.8	622,146	42.0	41,576	45.4
On-the-job training only	1,707,071	38.5	83,786	37.1	487,036	32.9	31,389	34.3
Classroom & On-the-job training	994,266	22.4	47,595	21.1	373,399	25.2	18,667	20.4
	4,439,605	100.0	225,731	100.0	1,482,581	100.0	91,632	100.0

Source: Calculations by the Canadian Council on Social Development using data from Statistics Canada's Workplace and Employee Survey, 2001.

example, 39.2% of workers with disabilities who did not use a computer earned wages in the lowest wage quartile, compared to 21.6% of workers with disabilities who did use a computer; similarly, only 12.1% of workers with disabilities who did not use a computer on the job earned wages in the highest wage quartile, compared with 35% of those who did use one.

- Similar results are found among workers without disabilities: 42% who did not use a computer on the job were in the lowest wage quartile, compared with 13.5% of those who used a computer; and 10.8% of those who did not use a computer had earnings in the highest wage quartile, compared with 33.7% who did use a computer.
- Among those who used computers, workers with and those without disabilities were almost equally likely to have earnings in the highest wage quartile (35% compared to 33.7%). Unfortunately however, workers with disabilities were more likely to have earnings at the lower end of the wage spectrum, with 21.6% in the lowest quartile compared with

13.5% of their non-disabled counterparts. While computer use on the job tends to have a positive impact, there still seems to be a group of workers with disabilities who are being left behind at the lower end of the wage spectrum.

- Workers with disabilities were less likely than those without disabilities to use a computer on the job (47% compared with 61%).
- In non-core firms, both workers with and those without disabilities experienced increases in job skills at about the same rate – just over 48% for both groups. In core firms, 50.1% of workers with disabilities had job skill increases, while 54% of workers without disabilities had job skill increases.
- Workers with disabilities were less likely to have received a personal interview before being hired (69% compared with 75.7%).
- Workers with disabilities were less likely to supervise others on the job (31.1% compared with 35.6%). Remembering that they tend to have more work experience, this is of concern.
- Workers with disabilities were less likely than those without disabilities to work flexible hours (29.5% compared with 35.5%). They were also less likely to work at home (15.9% compared with 23.6% for workers without disabilities).[11] These findings are somewhat discouraging when we consider that workers with disabilities often require flexible hours and the ability to work at home due to their disability.
- According to the PALS, the most commonly required job accommodation for workers with disabilities was "job redesign," which was needed by 17% of those who were employed; "modified work hours" were required by 19%.
- When we examined the "unemployed" population of persons with disabilities in the PALS, we found that 42% required "job redesign" and 35% required "modified work hours." This suggests that these particular requirements may leave individuals more vulnerable to job loss in the labour market.

[11] It is important to remember, however, that certain industries were not included in the WES. These kinds of job accommodations may be more likely in parts of the public sector which were absent from this survey.

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